

Applicants: Nalam Madhusudhana Rao and Priyamvada Acharya
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Amendments to the claims:

Certain claims have been amended below without disclaimer or prejudice to Applicant's right to pursue the subject matter of these claims in a continuation application.

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently Amended) ~~Novel~~ A thermostable, organic solvent resistant and high pH tolerant lipase ~~gene-variants~~ having an amino acid sequence selected from the group consisting of SEQ ID No. 2 of molecular wt 19443, SEQ ID No. 3 of molecular wt 19515, SEQ ID No. 4 of molecular wt 19456.9, SEQ ID No.5 of molecular wt.19487 and SEQ ID No.6 of molecular wt. 19470.9 SEQ ID No. 7 and SEQ ID No. 8.
2. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said ~~gene-lipase~~ variants are is thermostable in the temperature range of about 45 to 95°C.
3. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 2, wherein said ~~gene-lipase~~ variants are is highly thermostable at the temperature in the range of about 55 to 90°C.
4. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a $T_{1/2}$ value ~~is~~ in the range of 6 to 685.

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5. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a $T_{1/2}$ value ~~is~~ in the range of 7 to 677.
6. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a K_m value ~~is~~ in the range of 0.50 to 2.5 mM.
7. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a K_m value ~~is~~ in the range of 0.63 to 1.96 mM.
8. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a k_{cat} value ~~is~~ in the range of 4.5×10^{-2} to $8.5 \times 10^{-2} \text{ min}^{-1}$.
9. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a k_{cat} value ~~is~~ in the range of 5×10^{-2} to $8.1 \times 10^{-2} \text{ min}^{-1}$.
10. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a k_{cat}/K_m value ~~is~~ in the range of 4×10^{-2} to $10 \times 10^{-2} \text{ min}^{-1}$.
11. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has a k_{cat}/K_m value ~~is~~ in the range of 4.1×10^{-2} to $9.7 \times 10^{-2} \text{ min}^{-1}$.
12. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein ~~said gene-lipase variants are~~ is resistant to an organic solvents selected from group of

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acetonitrile, isopropanol, dimethyl sulfoxide and dimethyl formide.

13. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim ~~4~~12, wherein the organic solvent used is acetonitrile.
14. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has residual activity ~~of the gene variants is~~ in the range of 25 to 100% in presence of acetonitrile.
15. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein said lipase variant has residual activity ~~of the gene variants is~~ in the range of 28.7 to 85.5% in presence of acetonitrile.
16. (Currently Amended) ~~Novel gene~~ The lipase variants as claimed in claim 1, wherein the ~~gene lipase variants have~~ has inherent ability to withstand ~~high a~~ pH in the range of 9 to 13, and ability to withstand a damaging surfactants and enzymes comprising groups of linear alkyl benzene sulfonates, proteases and compounds thereof.

Claims 17-51. (Canceled)

52. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 3
53. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 4.

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54. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 5.
55. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 6.
56. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 7.
57. (New) The lipase variant as claimed in claim 1 having the amino acid sequence of SEQ ID No. 8.
58. (New) The lipase variant of claim 16, wherein the damaging surfactant is a linear alkyl benzene sulfonate.
59. (New) The lipase variant of claim 1, wherein the variant has inherent ability to withstand a pH in the range of 9 to 13 and ability to withstand a damaging enzyme.
60. (New) The lipase variant of claim 59, wherein the damaging enzyme is a protease.
61. (New) An expression system comprising a vector for expressing the lipase variant of claim 1.